

The examination (made by Mr. Ross, curator) showed that the gangrenous patches upon the abdomen had penetrated the entire thickness of the skin, exposing the muscles beneath; in other parts, the ulceration was of less depth. In each lung there were several small recent secondary abscesses, surrounded by a zone of hyperæmic tissue; on the left side there was also recent lymph on the surface of the pleura, and two ounces of purulent fluid in its cavity. A careful inspection of the brain, the other viscera, and the joints, revealed nothing unnatural.

In this case the diagnosis was made certain by the child having been seen by a competent observer, with the ordinary eruption of varicella before gangrene had commenced.

But to any one acquainted with Mr. Hutchinson's paper, the history and aspect of the eruption made the nature of the case sufficiently apparent. The gangrene in this instance set in suddenly and progressed with great rapidity; and a point of interest is the early occurrence of pyæmia, which was no doubt the immediate cause of death.

I am afraid the case does not throw any light upon the cause of this serious complication of what is usually a trifling disease. This child was very ill-nourished (probably from wrong feeding) and feeble, but other recorded instances of the disease have occurred in healthy children.

PEPTONES IN URINE.

By CHARLES HENRY RALFE, M.D., F.R.C.P.,

Assistant-Physician to the London Hospital.

SINCE my communication to the JOURNAL, April 7th, in which I alluded to the detection of peptones in urine, I have had three cases under observation at the London Hospital, in which the urine gave the reaction characteristic of these bodies with Fehling's solution. As the subject has again been brought forward in the interesting communication of Dr. Oliver (April 21st), and by Dr. George Johnson in last week's JOURNAL, I venture to think that brief notes of the cases may not prove uninteresting at the present time.

CASE I.—A lad aged 18, who had received, some days previously, a severe blow over the left flank, and for which he had been treated at the time in the receiving room of the hospital, applied with a letter at the out-patient department on April 9th. He stated that, since the accident, he had been feeling ill and weak, and that he still suffered much from pain in the left iliac region, passing down the groin into the thigh and hip; his bowels were much confined. The urine was examined for blood and albumen, and a small quantity of the latter was found. On testing the urine with Fehling's solution, a decided rosy red coloration was developed just above the junction of the two fluids. He was ordered to take an alkaline mixture, to which a few drops of tincture of opium were added, and a draught of sulphate of magnesia every other morning. On April 16th, he reported himself as much better, the urine was free from albumen, and no coloration was developed with Fehling's solution.

CASE II.—A woman, aged 54, was admitted as an out-patient April 16th, with dyspeptic symptoms, apparently due to gastro-duodenal catarrh. As she stated, she was frequently disturbed in the night time to pass urine, and suffered from weakness and debility, the urine was examined for albumen; none, however, was found, but the red coloration with Fehling's solution was well marked. She was ordered a mixture of bismuth and nuxvomica three times daily, and a compound rhubarb pill, with belladonna, twice a week at bedtime. April 30th. The dyspepsia was much relieved; there was still a coloration with Fehling's solution, but fainter.

CASE III.—A woman, aged 55, but looking very much older, was first seen April 23rd, complaining of rheumatism, dyspepsia, and shortness of breath, with a frequent desire to pass urine; she was very weak and debilitated. The urine was examined for albumen, but none was found; an exceedingly distinct, rosy red coloration, however, was developed with Fehling. In this instance, the urine gave a precipitate with picric acid, which redissolved on the application of heat. This patient was ordered quinine. On April 30th, I saw her again; she felt a little stronger, but the coloration with Fehling's solution was still distinct.

In order to ensure the development of the characteristic reaction, the following mode of procedure must be adopted. A drachm of Fehling's solution is to be introduced into a test-tube, and then a drachm of urine is to be floated carefully on the surface. Where the urine comes into contact with the alkaline copper solution, a thick zone of phosphates will form, above which, if peptones be present,

a red halo will appear, not violet, as stated by Dr. George Johnson, but a decided claret, or ruby red. Indeed, as a matter of fact, it is laid down in works on physiological chemistry, that the violet tint is characteristic of albumins, while the red coloration distinguishes the peptones from these. Great care must be taken not to mix the urine with the Fehling's solution; otherwise the deposit of phosphates will be diffused, and the red coloration obscured. It is probable, owing to want of attention to these details, that Dr. George Johnson has failed hitherto to meet with a specimen of urine showing the reaction.

The urine, too, should be recently passed. In Case 3, the reaction was very distinct in the sample of urine passed by the patient in the out-patient room, and a few hours later it was well marked when I showed it to a friend; but by the next morning the urine lost the power of developing the coloration with Fehling's solution, yielding instead only a muddy cloud. The urine had evidently undergone putrefactive changes, for it smelt abominably. I have since thought the peptones in this case might have been derived from pancreatic digestion; the result of which, as is well known, if prolonged, is to lead to putrefactive changes in proteid substances.

In my first communication I stated my belief that the peptones found in the urine would probably consist of the "mixed" peptones, and not merely of "true" peptones. I find, on reference to Dr. Michael Foster's *Text-Book of Physiology*, that the proteid body observed by Dr. Bence Jones in a case of osteomalacia, closely resembles the A peptone of Meissner, or if the nomenclature of Kühne be adopted, hemi-albumose. This body, as I need hardly observe, is one of the initial products of both peptic and tryptic digestion.

In conclusion, I venture to think that a consideration of the conditions under which peptones appear in the urine is likely to furnish us with important information, not only as regards the physiology of these bodies, but with respect to many obscure derangements of digestion. The test is so easy of application, and the reaction so plainly marked, while the number of instances in which it is found to occur are far from being rare and exceptional, that we ought soon to be able to collect a sufficiency of facts from which some useful deductions may be drawn.

ON THE ACTION OF CANNABIS INDICA.

By JAMES OLIVER, M.B.,

House-Physician to the Hospital for Women, London.

INDIAN hemp for some time back has been vaunted as a medicine of some therapeutic value in cases of dysmenorrhœa; to me, however, its action seems so variable, and the preparation itself so unreliable, as to be hardly worthy of a place on our list of remedial agents at all.

Two preparations of this drug have been recommended for use, viz., the tincture and the extract; it should matter little which is used, the tincture being simply a spirituous solution of the extract. Much, however, as far as results obtained go, seems to depend upon its place of cultivation. Many of those persons who experienced unpleasant effects from one-grain doses had previously taken the same dose (different sample, however,) with almost no result at all.

It is usually said that cannabis Indica produces pleasurable symptoms; such, I regret to say, has not been my experience; in fact, the result has frequently been alarming to the friends of the patient, but more frequently still, from the comparative inertness of the drug, no result is obtained at all, even although three and four grains have been given as a dose. When unpleasant symptoms have been produced by the use of this drug, they do not readily pass off, but will often persist for a day or two, and the too early use of morphia will not uncommonly aggravate the condition.

The physiological effects of the drug usually manifest themselves about two hours after administration; this, however, varies, being hastened or retarded according to the condition of the stomach as regards food at the time of ingestion.

Cerebral symptoms are the first to develop, the patient experiencing peculiar indescribable sensations in the head, by no means pleasant in character; and although quite rational, knowing all that is going on, some have an irresistible desire to be always on the move. In some cases earlier, in others later on, the patient loses control over the muscles, being unable to move them at will; in one case, the muscles of the larynx were so affected, and the patient when interrogated was for the time being unable to respond.

Muscular anesthesia is often produced by the use of Indian hemp,

and this is, as a rule, so complete that the whole body feels unsupported, as if floating in air. Pain, even at this stage, frequently persists, showing how little influence this drug evidently has on the sensory nerves. In some cases, spasmodic contractions of the voluntary muscles result, and this is more especially to be noted in the muscles of the jaw. Dimness of vision in many cases quickly follows, the pupils in some remaining unaltered, in others being apparently contracted. The pupil responds to light, but accommodation is interfered with, objects at a distance being very indistinct. The pulse is invariably rapid, but quite regular. Sensibility to touch is unaltered. Numbness and tingling have been constant symptoms in all the cases.

OCCIPITO-POSTERIOR PRESENTATIONS.

By A. D. LEITH NAPIER, M.D., Dunbar, N.B.

APPROPOS of recent memoranda relating to occipito-posterior presentations, three cases have recently fallen to my lot within one week.

CASE I.—A secundipara, aged 34, had been delivered, by forceps, two and a half years before, and then sustained perineal laceration, which was sutured and healed. On March 26th, 1883, I was sent for about 11.30 P.M. On examination, found the membranes ruptured, the os well dilated, the anterior lip swollen, posterior freely movable. The head was lying in the third position (right oblique, occiput posterior), and fixed in the middle third of the pelvis; transverse diameter was somewhat contracted. The anterior lip was supported, and slipped over the head; there was no natural attempt at rotation. Manual efforts to bring the occiput forwards failed. Equal parts of ether and chloroform having been given, the straight forceps was applied about 1.50 A.M. Rotation was attempted cautiously, but as more force seemed necessary than was thought justifiable, it was not continued. It was impossible to raise the head, as mentioned by Smellie and others. Traction being directed backwards, as the head neared the outlet, the forceps, pressing on the cicatrised part of the perineum (the cicatrix being easily distinguished by its hardness and non-elasticity), caused a right lateral laceration of about an inch; the tear was foreseen and calculated on. The head came without further rupture, and a large female child was born about 2.10 A.M. On the removal of the placenta, a violent gush of blood occurred, and the uterus did not contract. More ergotine was injected, and with extra-uterine and intra-uterine manipulation, the uterus contracted. A silver suture was inserted for the perineal rent, and the patient washed with carbolic water. No single unfavourable symptom during the puerperium.

CASE II.—A secundipara, aged 26, had been delivered two years ago instrumentally, and sustained considerable perineal laceration, for which she consulted me several months later. Labour came on on March 30th, 1883. On visiting about 4 P.M., I found the membranes had been ruptured for some hours; the os was almost of the size of a crown; the head on the upper third and in the fourth position, left oblique occiput-posterior. The patient was highly nervous, and the pains most feeble and unsatisfactory. I revisited about 5 P.M., and found very little alteration, except that the parts were hot and tense, and the anterior lip swollen; the caput succedaneum was prominently felt on the right parietal bone. Dr. Steele's modification, and, afterwards, one of Barnes's largest sized bags was introduced within the uterus anteriorly; the former became displaced; and, partly owing to accidental tension from the connecting syringe, the larger bag also was dislodged; it was reintroduced, but not, as formerly, wholly within the os, and fully distended. Pressure on the bag, and digital posterior expansion during the pains, shortly relaxed the os; the bag was withdrawn, and the os slipped over the head. The pains increased in severity; the head advanced, and, aided by digital manipulations, the occiput rotated forwards as it neared the pelvic floor, and, before seven o'clock, a large male child was born with the occiput anterior, the face turned to the right thigh of the mother. The umbilical cord entangled the shoulder. Recovery excellent.

CASE III.—This was a quartipara, aged 29; youngest child eighteen months old; her deliveries had been usually easy. The patient was taken ill on the afternoon of April 1st, 1883. I was summoned on April 2nd about 4 A.M. On examination, the os was found easily dilatable, the membranes unruptured; the head occupied the right oblique position, the occiput posterior. After waiting nearly an hour, and finding no alteration, and noting the inefficiency of the pains, I supported the anterior lip, which slipped

over the forehead, ruptured the membranes, and shortly after the pains increased. Upward pressure was maintained on the head anteriorly, and the natural rotation aided during the pains. As the head reached the pelvic floor, the perineal and vaginal tension was relaxed by stretching the posterior vaginal wall by the fingers; the occiput moved to the front, and, about 6.30 or so, a fine male child was delivered: the face rotated downwards to the left thigh. Recovery was excellent.

The occurrence of these consecutive occipito-posterior presentations is uncommon. Two clear examples of third presentations, within so short a time, is a proof of the assertion advanced by modern writers, that these are less unusual than was credited by bygone authorities.

The character of the labour was alike in all three, inasmuch as the pains were feeble, and of brief duration; artificial aid was given in all. The anterior lip was pressed upwards, as it delayed delivery, and far more effectual support to the anterior portion of this can be made digitally.

In Case I, the narrowed transverse diameter and the unyielding perineum probably explained the non-possibility of forward occipital rotation. Despite assertions to the contrary, I venture to think some perineal laceration in instrumental occipito-posterior deliveries is almost inevitable, unless either the fetal head is smaller, or the maternal parts more roomy than the average. I also think that more scientific and accurate instrumentation can be carried out in these cases by means of straight forceps, unless the head is at the brim, when curved instruments are preferable. To reverse curved forceps, for rotation purposes, would generally be more risky than the circumstances warranted. I esteem artificial rotation, by curved instruments, attempted in the cavity, far more hazardous than the chance of moderate perineal laceration, which is rendered probable by effecting delivery with the occiput backwards.

In Case II, pressure on the anterior part of the head was continuously maintained by the India-rubber bag; certainly this manoeuvre was serviceable, and merits further trial. Had it not been for its adoption, I am convinced the case would have required forceps.

Case III illustrates the value of precise diagnosis, and how, by means of safe and ready aid, nature may be assisted.

ON THE DELIGATION OF LARGE ARTERIES BY THE APPLICATION OF TWO LIGATURES AND THE DIVISION OF THE VESSEL BETWEEN THEM.

By W. J. WALSHAM, F.R.C.S.

IN the BRITISH MEDICAL JOURNAL of April 21st, Mr. James Black, referring to an article of mine on the above subject in the JOURNAL of April 7th, suggests, as a possible objection to the method therein advocated, that, in the case of an artery such as the femoral, the branches of which are apt to arise abnormally, a large branch might occur between the two ligatures, and, not being discovered until the moment of dividing the vessel, would cause at least some embarrassment. The presence of a large branch either close above the upper ligature or below the lower would, no doubt, tend to endanger the success of the operation, as it would were it to occur near a ligature applied in the usual way. Given, however, an abnormal branch at the situation where the artery is usually tied, should it happen to arise between the two ligatures, it would, I take it, be a fortunate occurrence for the patient, as a ligature could then be applied to it also before dividing the vessel, and all chances of secondary hæmorrhage from this source be prevented. As to the discovery of such an abnormal branch, Mr. Black says that, when an artery is neatly tied, such a very small opening is made in its sheath, that it would be quite impossible to tell whether a branch is given off from the posterior aspect of the trunk. This, of course, holds good in applying a ligature in the usual way, but not in the method advocated by me. In my cases, the sheath having been freely opened, the ligatures were applied a little less than half an inch apart (*not* a little less than an inch)—*i.e.*, as close together as possible, consistent with the division of the vessel and the prevention of the slipping of the ligatures. The small portion of the artery, therefore, between the two ligatures, was fully exposed, and a director passed under it before the division was made. Any branch, consequently, arising from its posterior or other aspect, would have been readily discovered.